

**REMARKS**

This Amendment and Response to Final Office Action is being submitted in response to the final Office Action mailed October 4, 2006. Claims 1-35 are pending in the Application. Claim 28 is rejected under 35 U.S.C. 102(e) as being anticipated by Cardwell et al. (U.S. Patent Application Publication No. 2002/0036988). Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Ramamurthy et al. ("Optimizing Amplifier Placements in a Multiwavelength Optical LAN/MAN: The Unequally Powered Wavelengths Case," IEEE/ACM Transactions on Networking, Vol. 6, No. 6, December 1998, pp. 755-767). Claims 1-3, 7-10, 14, 32, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. (U.S. Patent No. 6,304,347). Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. as applied to Claim 32, and further in view of Sharma et al. (U.S. Patent No. 6,046,833). Claims 4-6, 11-13, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. as applied to Claims 1, 8, and 32, and further in view of Ramamurthy et al. Finally, Claims 15-27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. and Ramamurthy et al.

In response to these rejections, Claims 1, 8, 15, 28, 29, and 32 have been amended to further clarify the subject matter which Applicant regards as the invention, without prejudice or disclaimer to continued examination on the merits. These amendments are fully supported in the Specification, Drawings, and Claims of the Application and no new matter has been added. Based upon the amendments, reconsideration of the Application is respectfully requested, without further search, in view of the following remarks.

**Rejection of Claim 28 Under 35 U.S.C. 102(e) – Cardwell et al.:**

Claim 28 is rejected under 35 U.S.C. 102(e) as being anticipated by Cardwell et al. (U.S. Patent Application Publication No. 2002/0036988).

Examiner states that Applicant's claims only recite that the system includes "one or more" of the various types of loss algorithms, and that Cardwell et al. disclose at least a node loss algorithm. Although Applicant still maintains that the node loss algorithm of the present invention is not anticipated by Cardwell et al., Applicant makes the following claim amendment to further clarify the differences between the two inventions.

Claim 28, as well as Claims 1, 8, 15, 29, and 32, have been amended to recite, in relevant part (Claims 1, 8, 15, 29, and 32 incorporating substantially similar language):

wherein the initial placement is constrained by ~~one or more~~ of a node loss algorithm wherein it is determined if a given node has an internal node loss for one or more channels that exceeds a predetermined level, and one or more of a span loss algorithm wherein it is determined if a given span has an internal span loss for one or more channels that exceeds a predetermined level, the span loss algorithm taking into account the internal span loss of a given fiber and one or more transmitter/receiver to output port/input port equivalent losses at one or more end nodes of the span, a path loss algorithm wherein the span loss algorithm is extended to include non-adjacent nodes, an aggregate loss algorithm wherein it is determined if one or more nodes have an aggregate span and band loss for one or more channels that exceeds a predetermined level, and a sequential path search algorithm wherein the power characteristics of one or more channels are analyzed from add point to drop point

Cardwell et al. do not disclose a node loss algorithm used with one or more of a path loss algorithm, an aggregate loss algorithm, or a sequential path algorithm, as does the present invention.

Therefore, Applicant submits that, because Claim 28 now recites elements/limitations not disclosed by Cardwell et al., the rejection of Claim 28 under 35

U.S.C. 102(e) as being anticipated by Cardwell et al. has now been overcome and respectfully requests that this rejection be withdrawn.

**Rejection of Claims 29-31 Under 35 U.S.C. 103(a) – Cardwell et al. and Ramamurthy et al.:**

Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Ramamurthy et al. ("Optimizing Amplifier Placements in a Multiwavelength Optical LAN/MAN: The Unequally Powered Wavelengths Case," IEEE/ACM Transactions on Networking, Vol. 6, No. 6, December 1998, pp. 755-767).

The above arguments with regard to Claim 28 apply with equal force here. Therefore, Applicant submits that the rejection of Claims 29-31 under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Ramamurthy et al. has now been overcome and respectfully requests that this rejection be withdrawn.

**Rejection of Claims 1-3, 7-10, 14, 32, and 34 Under 35 U.S.C. 103(a) – Cardwell et al. and Beine et al.:**

Claims 1-3, 7-10, 14, 32, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. (U.S. Patent No. 6,304,347).

The above arguments with regard to Claim 28 apply with equal force here. Therefore, Applicant submits that the rejection of Claims 1-3, 7-10, 14, 32, and 34 under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. has now been overcome and respectfully requests that this rejection be withdrawn.

**Rejection of Claim 33 Under 35 U.S.C. 103(a) – Cardwell et al. and Sharma et al.:**

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. as applied to Claim 32, and further in view of Sharma et al. (U.S. Patent No. 6,046,833).

The above arguments with regard to Claim 28 apply with equal force here. Therefore, Applicant submits that the rejection of Claim 33 under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. as applied to Claim 32, and further in view of Sharma et al., has now been overcome and respectfully requests that this rejection be withdrawn.

**Rejection of Claims 4-6, 11-13, and 35 Under 35 U.S.C. 103(a) – Cardwell et al., Beine et al., and Ramamurthy et al.:**

Claims 4-6, 11-13, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. as applied to Claims 1, 8, and 32, and further in view of Ramamurthy et al.

The above arguments with regard to Claim 28 apply with equal force here. Therefore, Applicant submits that the rejection of Claims 4-6, 11-13, and 35 under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. as applied to Claims 1, 8, and 32, and further in view of Ramamurthy et al., has now been overcome and respectfully requests that this rejection be withdrawn.

**Rejection of Claims 15-27 Under 35 U.S.C. 103(a) – Cardwell et al., Beine et al., and Ramamurthy et al.:**

Finally, Claims 15-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. and Ramamurthy et al.

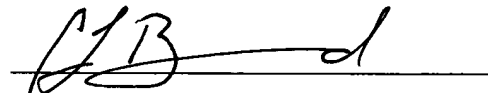
The above arguments with regard to Claim 28 apply with equal force here. Therefore, Applicant submits that the rejection of Claims 15-27 under 35 U.S.C. 103(a) as being unpatentable over Cardwell et al. in view of Beine et al. and Ramamurthy et al. has now been overcome and respectfully requests that this rejection be withdrawn.

CONCLUSION

Applicant would like to thank Examiner for the attention and consideration accorded the present Application. Should Examiner determine that any further action is necessary to place the Application in condition for allowance, Examiner is encouraged to contact undersigned Counsel at the telephone number, facsimile number, address, or email address provided below. It is not believed that any fees for additional claims, extensions of time, or the like are required beyond those that may otherwise be indicated in the documents accompanying this paper. However, if such additional fees are required, Examiner is encouraged to notify undersigned Counsel at Examiner's earliest convenience.

Respectfully submitted,

Date: December 04, 2006

  
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